C. Remarks

The claims are 74-77, with claim 74 being independent. Reconsideration of the present claims is expressly requested.

Claims 74-77 stand rejected 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. Specifically, the Examiner continues to allege that the specification as originally filed does not support the range of the side lengths of square sections and the absence of walls partitioning the sections.

Initially, Applicants and their undersigned attorney would like to thank the Examiner for the courtesies extended to the undersigned during the telephone interview conducted subsequent to the mailing of the May 16, 2007 Office Action. During the interview, the Examiner agreed that the specification as filed supports the recitation in claim 74 regarding the side lengths of square sections. However, the Examiner continued to maintain that the specification does not explicitly state that no partitioning walls are present.

As stated in M.P.E.P. 2163, the specification can provide adequate support for a claim amendment by implicitly or inherently disclosing an added feature. "By disclosing in a patent application a device that inherently performs a function or has a property, operates according to a theory or has an advantage, a patent application necessarily discloses that function, theory or advantage, even though it says nothing explicit concerning it. The application may later be amended to recite the function, theory or advantage without introducing prohibited new matter." M.P.E.P. 2163.07(a).

The subject specification, at page 14, line 35, to page 15, line 8, discloses that the while the shapes of matrix patterns are not limited, linear, square and rectangular patterns are preferable, and shapes such as circles and ellipses will cause no problems with respect to convenience at the time of supplying specimens on the created substrate. This description teaches that the shape of matrix patterns is preferably simple rather than complex or irregular.

Furthermore, the specification, at page 17, line 27, to page 18, line 7, discloses that when probe solution is put on the separated matrix to carry out a coupling reaction, it is preferable that portions constituting the well are hydrophilic, while portions corresponding to the wall surface of the well and the partition between the well and a neighboring well are composed of materials whose surfaces are less compatible with the probe solution. The specification also describes, on page 52, lines 18-21 (Example 1), that 5μl of a solution of the single-strain DNA is injected under a microscope into each well of the polylysine-coated substrate with black matrices. From this description, it is evident that in Example 1, the black matrices (wells) are needed because a DNA solution is "manually" injected.

In contrast, in Example 3, a DNA solution is injected using an ink-jet (bubble jet) head. As described on page 23, lines 16-21, the use of an ink-jet head results in a DNA solution (placing specimen probes) being spotted at a high density, because a very small amount (e.g., 4 to 50 pl) of a liquid can be discharged accurately onto a substrate. It is, therefore, evident that this leads to an advantage that no matrix or partition wall is needed for preventing the discharged liquid from flowing into an adjacent section in case of using

an ink-jet head. The recitation of this inherent advantage in claim 74, therefore, does not violate the prohibition against introduction of new matter. M.P.E.P. 2163.07(a).

Furthermore, a skilled artisan would clearly understand Example 3 to disclose a structure without any partition walls since such are not needed. Moreover, under the conditions described in Example 3, partitioning walls would be contrary to the preference for a simple structure disclosed in the specification. Accordingly, the specification provides adequate support for the "no walls partitioning the sections" limitation in claim 74.

Claims 74-77 stand rejected as being allegedly anticipated by U.S. Patent No. 5,700,637 (Southern) or U.S. Patent No. 5,807,522 (Brown). The grounds of rejection are respectfully traversed.

Prior to addressing the merits of rejection, Applicants would like to briefly discuss some of the features of the presently claimed invention. That invention is related to a method of detecting a complex formed between an oligonucleotide having a known base sequence and ad object that is to be identified via hybridization with the probe. Plural types of oligonucleotides having known base sequences different from one another are fixed in square sections on a detection substrate. At least two test samples are spotted in each section. Specifically, a predetermined liquid amount of each of the test samples is spotted in each section in such a manner that individual spots are sufficiently spaced from each other to conduct a complex-forming reaction between the oligonucleotide and the object component at each spot. This is schematically demonstrated in attached Fig. A.

Brown discloses a testing procedure that is different from the presently claimed method. Specifically, Brown teaches loading a hybridization solution onto the substrate. This reference does not disclose or suggest spotting a predetermined liquid amount of each of the test samples in each section in such a manner that individual spots are sufficiently spaced from each other to conduct a complex-forming reaction between the oligonucleotide and the object component in each spot. This is schematically demonstrated in attached Fig. B. Clearly, Brown cannot affect the patentability of the presently claimed invention.

Southern is directed to an apparatus and method for analyzing a polynucleic sequence. Souther teaches laying down the matrix using low-cost ink-jet technology (col. 6, lines 31-55). Then, a test sample is supplied for hybridization. This is schematically demonstrated in attached Fig. C. However, like Brown, Southern fails to disclose or suggest spotting a predetermined liquid amount of each of the test samples in each section in such a manner that individual spots are sufficiently spaced from each other to conduct a complex-forming reaction between the oligonucleotide and the object component in each spot. Thus, Southern also cannot affect the patentability of the presently claimed invention.

In sum, it is clear that neither of the cited references, whether considered separately or in combination, discloses or suggests all of the presently claimed elements.

Wherefore, withdrawal of the outstanding rejections and expedient passage of the application to issue are respectfully requested.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our

address given below.

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